



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
)
James Robert Adair, Jr. et al.)
) Examiner: **Thanh K. Truong**
Serial No. **09/954,443**)
)
Filing Date: **September 17, 2001**) Art Unit: 3721
)
For: **Heat Seal Die and System and Method**)
For Portion Control Sized Packaging)

SECOND DECLARATION OF EDWARD JOSEPH CIGALLIO UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Edward Joseph Cigallio, hereby declare that:

1. I am a co-inventor of the above-identified patent application (the "Patent Application") and have previously submitted a Declaration Under 37 C.F.R. § 1.132 for this application. This is a second Declaration to address issues raised in the Office Action mailed August 24, 2004 which I have reviewed along with cited references U.S. Patent 3,228,170 issued to Eisenstadt (the Eisenstadt Patent) and U.S. Patent 6,301,859 issued to Nakamura et al. (the Nakamura Patent).

2. It is my understanding that Claims 9, 12-18 and 21-26 are rejected under 35 USC §103(a) as being unpatentable over the Eisenstadt Patent in view of the Nakamura Patent. The Examiner cites the Eisenstadt Patent as disclosing all features of independent claims 9 and 18 of the application except the use of heat tubes in the die members.

4. Independent claim 9 of this application describes a system for making portion control sized packaged flowable liquid-containing condiments in a portion size in the range from 1 to 5 ounces comprising a form/fill/seal apparatus and a heat seal die that includes longitudinal heat seal tubes for substantially uniform heating of the die face of the heat seal die. Independent claim 18 describes a corresponding method for making portion control sized packaged flowable liquid-containing condiments in a portion size in the range from 1 to 5 ounces.

5. More particularly, the system of amended claim 9 of the present application describes a heat sealable material feeder, a flowable material feeder for feeding a flowable liquid-containing condiment, and a form/fill/seal apparatus structured and arranged for making portion control sized packages so that the portion control sized package has a portion size in the range from 1 to 5 ounces. Specifically, this form/fill/seal apparatus is structured and arranged for receiving the heat sealable material, forming a portion control sized package with the heat sealable material, filling the portion control sized package with the flowable liquid-containing condiment in a portion size in the range from 1 to 5 ounces, and sealing the portion control sized package. The form/fill/seal apparatus includes a heat seal die comprising first and second heating elements and first and second longitudinal heat tubes disposed, respectively, in first and second die members. The heat tubes, which can also be described as heat pipes, are disposed between the heating element and the die face of each die member for maintaining a substantially uniform heat seal temperature along the length of the die faces. The substantial uniformity of

heat seal die temperature significantly decreases the occurrence of serum leakers, which are packages that leak liquid through the package seal.

6. The Eisenstadt patent discloses an automatic machine 20 for packaging liquids and semi liquids such as mustard and syrup in individual portion size heat seal packages 24. This machine 20 generally includes a heat sealable plastic film feeder, a fluid or semi fluid feeder 100 for feeding the fluid or semi fluid substance 27, and a form/fill/seal mechanism 40 for forming the packages. The form/fill/seal mechanism 40 includes heat sealing jaws (46 and 64) for sealing the edges of the pouches.

7. The machine described in the Eisenstadt patent is a single lane form/fill/seal packaging machine meaning that it only forms one package at a time. The film fed through this machine is only wide enough to form one package at a time. The Eisenstadt patent does not disclose any detail regarding the structure of the heat sealing jaws or the manner of heating them. With a single lane, single serving packaging machine, the heat seal dies are small so that the temperature across the dies is easily kept uniform and serum leakers are not a problem. Serum leakers become a problem in multi-lane individual portion packaging machines because the heat seal dies are much longer and maintaining uniform temperature along the die is more difficult. This problem is not appreciated in the Eisenstadt patent.

8. The Eisenstadt Patent and the Nakamura Patent do not establish a *prima facie* case of obviousness against amended claims 9 and 18 of this application. First, there is no motivation to modify the Eisenstadt Patent to include heat tubes, because the Nakamura Patent actually teaches away from using heat tubes, does not suggest using heat tubes in portion control

sized packaging systems, and certainly does not appreciate the problems particular to the smaller, thinner portion control sized packaging heat seal dies. With portion control sized packaging heat seal dies, there is little concern about heat transfer through the depth of the dies, as they are small and thin. Instead, the concern is uniformity of temperature along the long length of the dies. This problem is well addressed by Applicants' invention as defined in independent claims 9 and 18 of this application, while the Nakamura Patent does not address portion control sized packaging systems or this problem, and even teaches away from using heat tubes.

9. In the Examiner's Response to Arguments set forth in the Office Action, the Examiner explains that the embodiments in Figs. 11A-B of the Nakamura patent illustrating heat tubes remain pertinent prior art despite any teaching away from using such embodiments in the Nakamura patent. Applicants do not dispute that the Nakamura patent is pertinent prior art. Applicants submit that the Nakamura patent is prior art that teaches away from using heat tubes in portion control packaging manufacturing and is a disincentive to one of ordinary skill in the art to combine the embodiments in the Nakamura patent illustrating heat tubes with the system disclosed in the Eisenstadt reference. The rejection in this Office Action is one of obviousness under 35 U.S.C. § 103. Particularly, the Examiner takes the position that it would have been obvious to combine the teachings of heat tubes in the Nakamura patent with the Eisenstadt patent. Applicants are not arguing that the Nakamura patent is non-analogous art. Applicants position is that the combination of the Nakamura patent and the Eisenstadt patent does not establish a prima facie case of obviousness because the Nakamura patent teaches away from combining heat tube technology with a form/fill/seal machine and therefore teaches away from

combining the Nakamura patent with the Eisenstadt patent. Because of this teaching away, there is no motivation to one of ordinary skill in the art to make such a combination.

10. Furthermore, the Eisenstadt patent is a single lane, individual serving form/fill/seal packaging machine and therefore the heat seal dies are small, so that the temperature across the dies is easily kept uniform and serum leakers are not a problem. Serum leakers become a problem in mult-lane individual portion form/fill/seal packaging machines because the heat seal dies are much longer and maintaining uniform temperatures along the dies is more difficult. This problem is not appreciated in the Eisenstadt patent. Thus, there is no motivation to address the problem and combine the Nakamura patent with the Eisenstadt patent.

11. I declare that all statements made herein of my own knowledge and belief are true and that all statements made on information and belief are believed to be true, and further that the statements are made with the knowledge that willful false statements are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: February 2, 2005


Edward Joseph Cigallio